COURSE OBJECTIVES:

- Building a canvas of graphs, charts, and other tools to display my data effectively for the team.
- Using Business Analytics tools for effective portrayal of data.
- Importing data from multiple sources and combining them into one canvas.
- Recognising key fields between datasets and marrying them.
- Modifying visualisations; building dashboards.
- Using PowerBI to create exceptional dashboards and canvases.
- Building relationships between different tables in different worksheets and workbooks.
- Importing data from different worksheets and workbooks
- Creating dashboards, with maps, slicers, pivot tables and sparklines

WHO SHOULD ATTEND?

This course will benefit a wide range of individuals from various sectors and industries.

- **Engineers**
- **Researchers**
- **Research assistants**
- **Technical report writers**

BENEFITS

- **Learning Open AI**
- **Participation in an interactive workshop**
- **Learn from a recognised expert with cross industry experience**
- **Comprehensive course documentation**
- **Immediate implementation in the workplace**

Effective Human Intervention
LEADERS IN TRAINING

Power BI

INCLUDING THE USE OF AI

YOUR FACILITATOR

Karl is a highly experienced trainer in the corporate environment, highly qualified in Educational theory and methodology. Karl has trained in the corporate sphere for 28 years, and prior to that, lectured degree programmes for the University of the Witwatersrand

Karl has taught Report Writing to thousands of delegates countrywide. He has done this for the last 25 years, in particular to people in the engineering, technical and research fields. He has taught in nine countries in Africa, including Eritrea, Ghana, Uganda, Zambia, Mozambique, Eswatini, Botswana, Namibia and of course South Africa.

TARGET GROUP

This course is intended for delegates who have either had elementary exposure to report writing or are being groomed for report writing in the company.

COURSE DESCRIPTION

Power BI is a data visualization tool that takes all the hard work done in excel and other data programs and converts it into powerful visualizations on something known as a "tapestry". Not only is all the data represented visually, but can be shared online, and worked on simultaneously. There is no doubt that this is where the future of data is going.

CONFIGURATION: TWO DAYS

COURSE CONTENT

DAY 1 (ANALYSIS)

Topic 1: DATA ACQUISITION
- Working with the PowerBI interface – both WEB and Desktop versions
- Importing all database formats
- Loading and saving as worksheets with tables
- Use the PowerBI panel to control all your actions – undoing, redoing, and prioritising
- Adding to the Data Model

Topic 2: DATA TWEAKING
- Loading and modifying original data for the PowerBI interface
- Adding functional columns modifying original data
- Splitting columns using delimiters
- Editing the columns, and adding calculated columns in the PowerBI program
- Appending data to existing tables using PowerBI
- Changing data types
- Establishing field headers

Topic 3: RELATIONSHIPS
- Creating relationships between key fields in PowerBI
- One to many, many to many and one to one relationship management
- Adding data to the data model
- Working off multiple tables to create pivots
- Filtering out data using the filter panel

Topic 4: CREATING DASHBOARDS
- Slicers, filters and sparklines – creating the best dashboard for your pivots
- Integrating maps and bar charts

Topic 5: k PI's AND MEASURES
- Deciding on what measures to use Creating the measures
- Managing your KPI's based on measures

DAY 2 (SYNTHESIS)

Topic 6: THE POWER OF DATA
- Using Excel as a Data Source for Power BI
- The Power BI Data Model
- Using Databases as a Data Source for Power BI
- Workshop: Importing Data into Power BI
- Importing Excel files into Power BI
- Cleaning up and transforming data
- Using the Query Editor
- Creating a query
- Understanding query steps
- Automatically generated steps
- Removing query steps
- Modifying query steps
- Renaming columns

Topic 7: DAX AND CUSTOMISATION
- Data modelling using Dax
- Creating new columns, measures, and tables in power BI
- Adding new columns during the data transform phase
- Checking that the intuitive relationship formation is correct
- Making functions and reports much faster
- The intuitive side of power BI.
- Optimizing your data models to make them more efficient and summarizing large amounts of data quickly
- Power BI Desktop Queries
- Data modelling
- Working in data view
- Working in relationship view
- Auto-detection of table relationships
- Creating table relationships manually
- Setting cardinality
- Cross filter direction
- Shaping Data
- Combining Data
- Workshop: Shaping and Combining Data
- Shape Power BI Data
- Combine Power BI Data

Topic 8: FINE-TUNING THE REPORT
- Creating Power BI Reports
- Managing a Power BI Solution
- Workshop: Creating a Power BI Report
- Connecting to Power BI Data
- Building Power BI Reports
- Creating a Power BI Dashboard
- Cloud Data
- Connecting to Analysis Services
- Workshop: Direct Connectivity
- Direct Connections to Power BI

Topic 9: COUP DE GRÂCE – PUBLISHING AND SHARING
- Publishing to the web
- Publishing to PDF
- Best practices for PowerBI reports